

Metro Nashville's

walk**n**bike

**PRIORITY BIKE NETWORK
YEAR1 IMPLEMENTATION**

GERMANTOWN



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Metro Nashville
Public Works
Improving the Quality of Life for Nashvillians and our Visitors



Priority Bikeway Network (PBN)

Four main criteria were used to plan the priority bikeway network:

- Roadway Characteristics
- Bicycle Demand
- Constructability
- Public Input



Bike Lanes, Nashville, TN

Germantown / North Nashville



PBN Project Locations for Year 1

“While there is need for bikeways throughout Nashville, the PBN focuses on the urban core where the demand and need for a connected network is the greatest.”

2018 - 2019 PBN Year 1 by the Numbers

Approx. Total Linear Distance = 25.30 mi
Approx. Cost of Year 1 Projects = \$4.3 mil

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MONROE STREET BIKEWAY

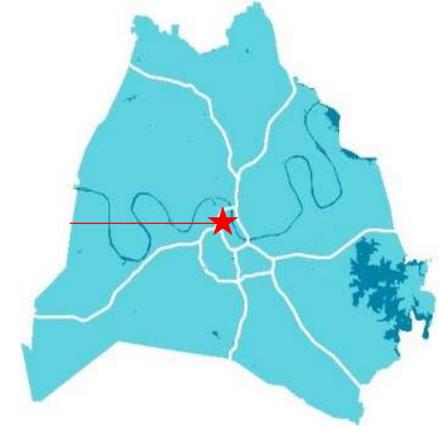


Monroe St Focus Project

Project Description

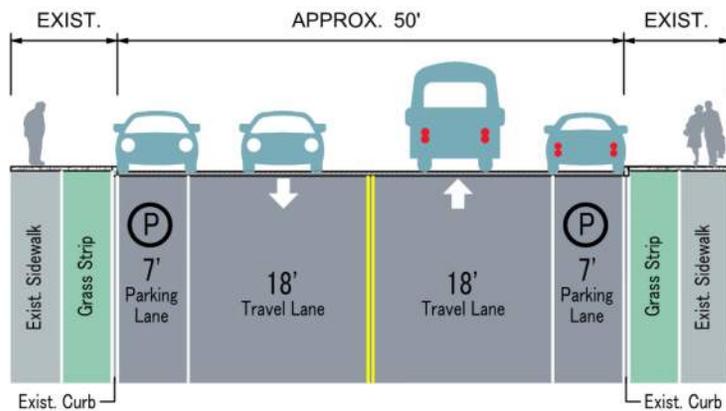
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Project Vicinity

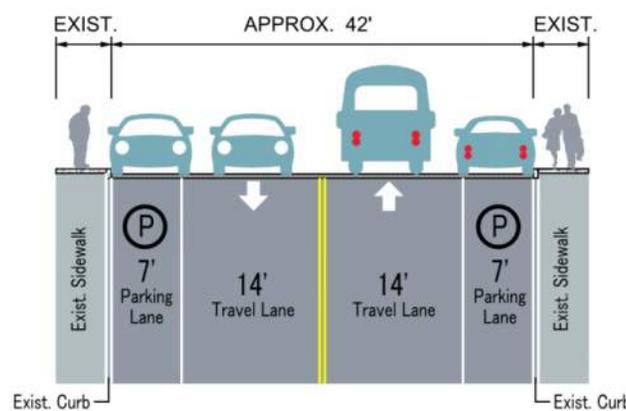


PROJECT A MONROE STREET

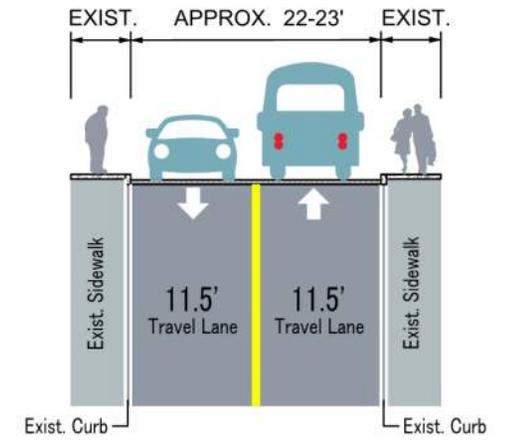
Arthur Ave to Rosa L. Parks Blvd



Rosa L. Parks Blvd to 5th Ave N



5th Ave N to Greenway



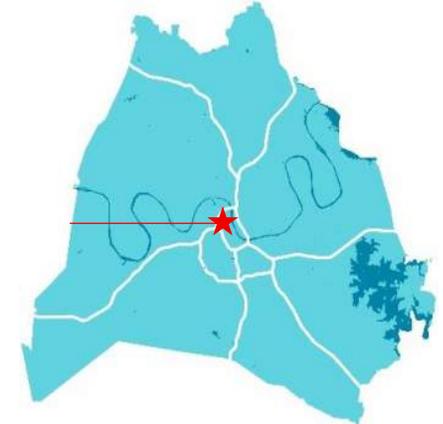
MONROE STREET - EXISTING ROADWAY CROSS-SECTIONS



Project Description

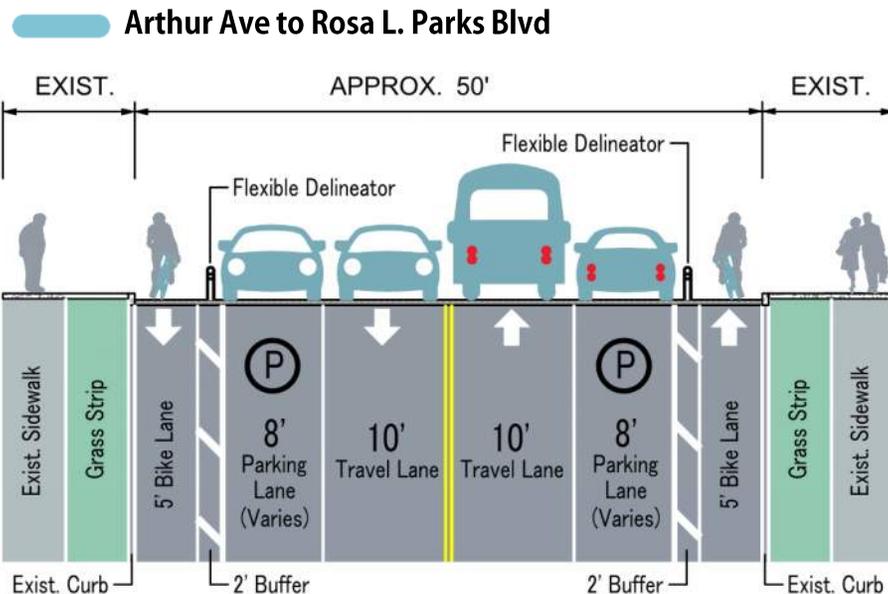
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Project Vicinity



Monroe St Focus Project

**PROJECT A
MONROE STREET**



Protected Bike Lane Advantages

- Increases bicycle safety and comfort
- Eliminates over-taking motor vehicles
- Reduces/eliminates *dooring* risk
- Encourages more people to ride
- Potential to reduce motor vehicle speeds

Challenges

- Presence of driveways breaks continuity
- Motorist familiarity
- Buffer width may vary

MONROE STREET - PROPOSED ROADWAY CROSS-SECTIONS

Example of a Protected Bike Lane

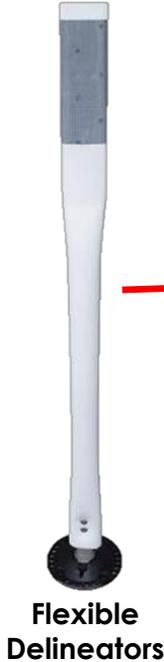
Protected bike lanes physically separate bicyclists from motor vehicle traffic

- Painted Buffer
- Parked Cars
- Flexible Delineator Posts

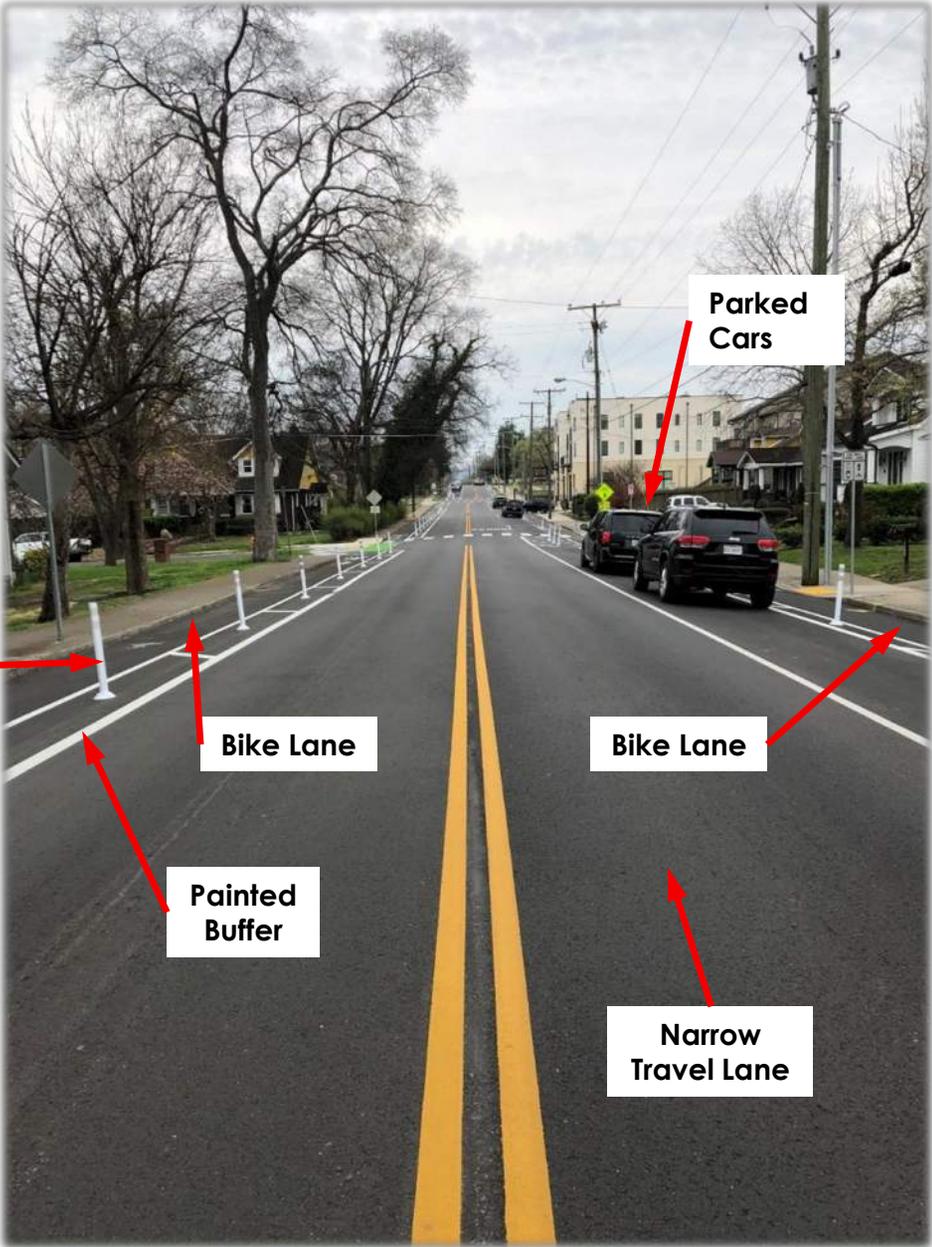
10th Avenue S, Nashville, TN



Green Colored Pavement at Conflict Points (Intersections)



Flexible Delineators



Parked Cars

Bike Lane

Bike Lane

Painted Buffer

Narrow Travel Lane

10th Avenue S, Nashville, TN

Example of a Protected Bike Lane

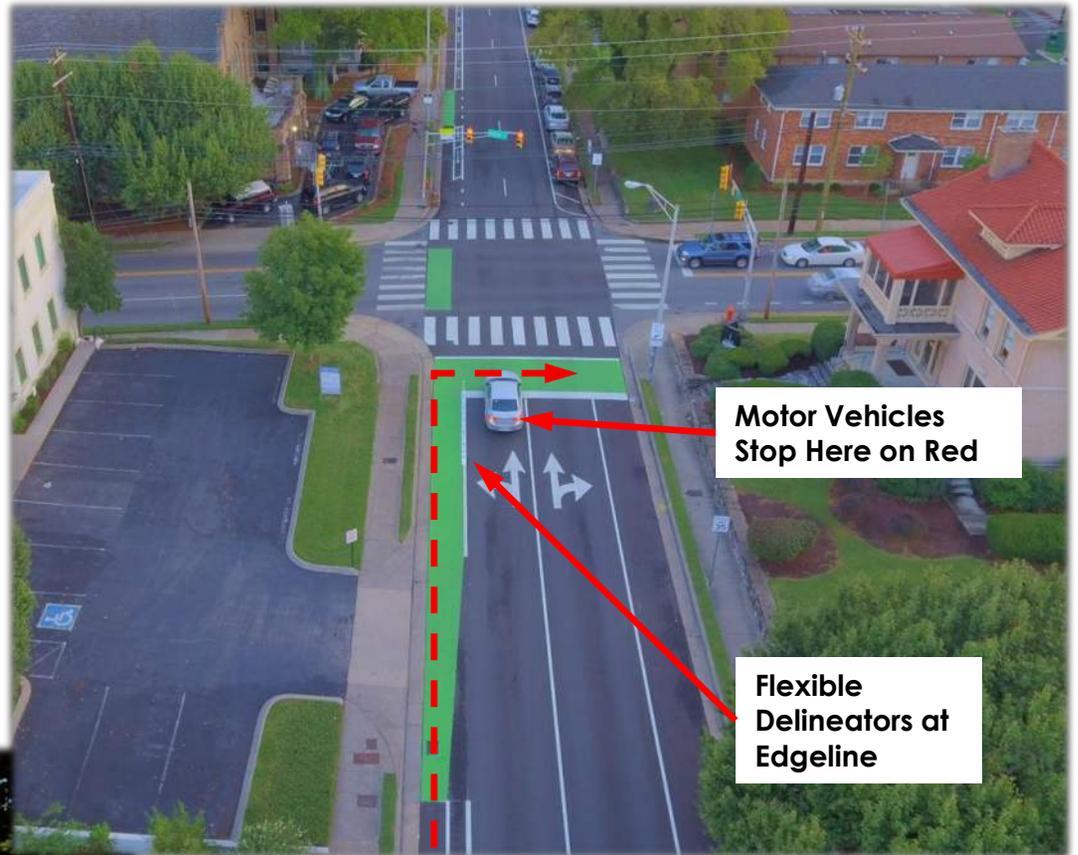


16th Avenue S (One-Way), Nashville, TN

Example of a Bike Box

A bike box is a designated area that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase.

- Increased visibility for bicyclist
- Helps to eliminate *right-hook* conflicts with turning vehicles
- Pedestrians benefit from reduced vehicle encroachment into crosswalks



17th Ave. S & Edgehill Ave. – Nashville, TN

Bicyclist's Path to Jump Queued Motor Vehicles for Safe Right Turn



16th Ave. S – Nashville, TN

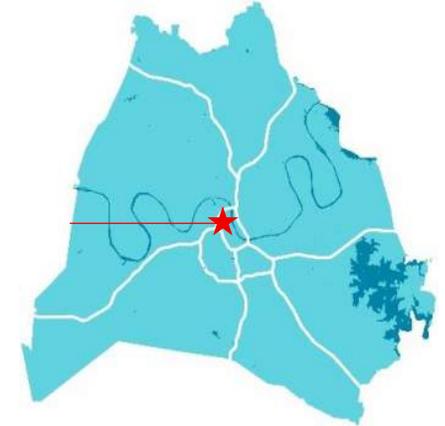


Monroe St Focus Project

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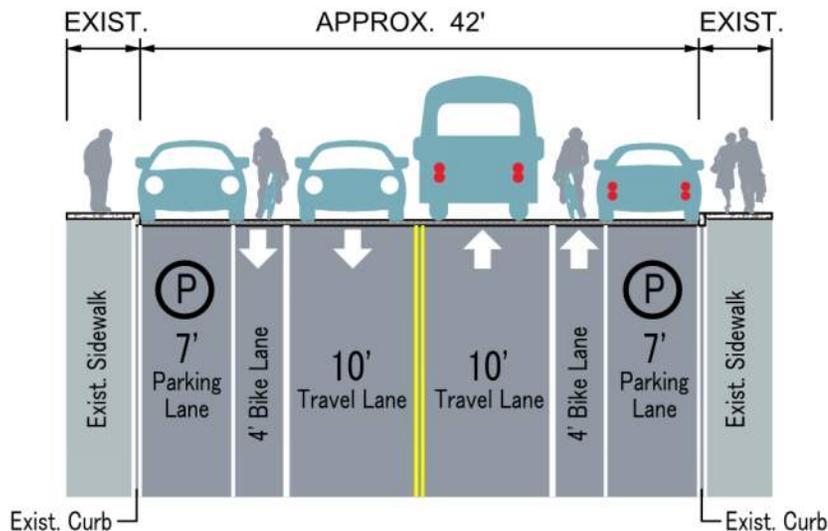
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Project Vicinity



PROJECT A MONROE STREET

Rosa L. Parks Blvd to 5th Ave N



Traditional Bike Lane Advantages

- Provides dedicated lanes for bicyclists
- Maintains all existing parking
- Potential to reduce motor vehicle speeds

Challenges

- Bicyclists risk *dooring* crashes
- No physical separation
- Reduced bicyclist comfort

Opportunities

- Remove parking on one side to increase parking & bike lane width, add buffer space with delineators

MONROE STREET - PROPOSED ROADWAY CROSS-SECTIONS

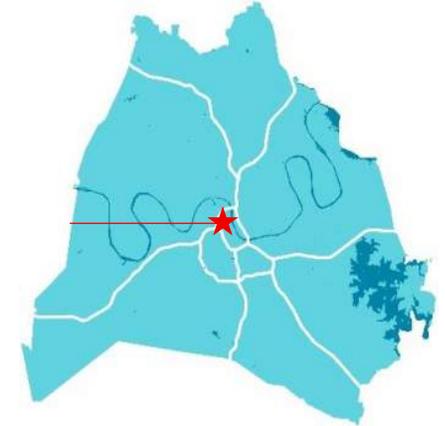


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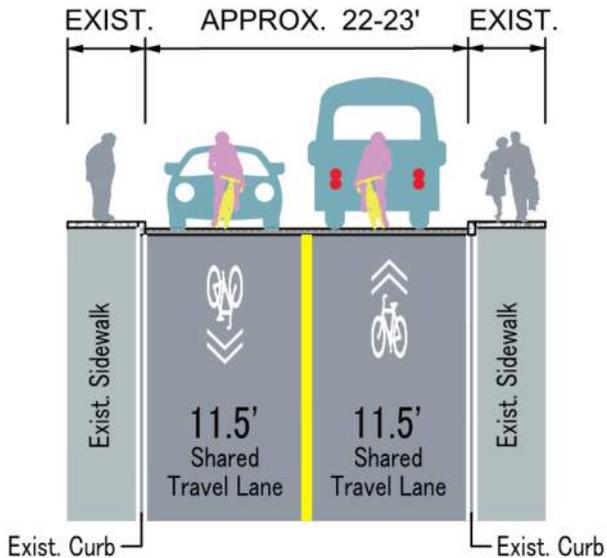
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Project Vicinity



PROJECT A MONROE STREET

5th Ave N to Greenway



Option 1

Shared Bike Lanes

MONROE STREET - PROPOSED ROADWAY CROSS-SECTIONS

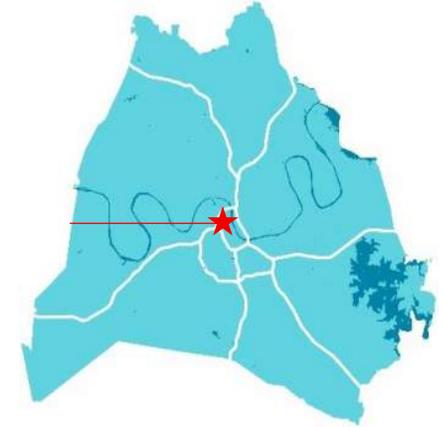


Monroe St Focus Project

Project Description

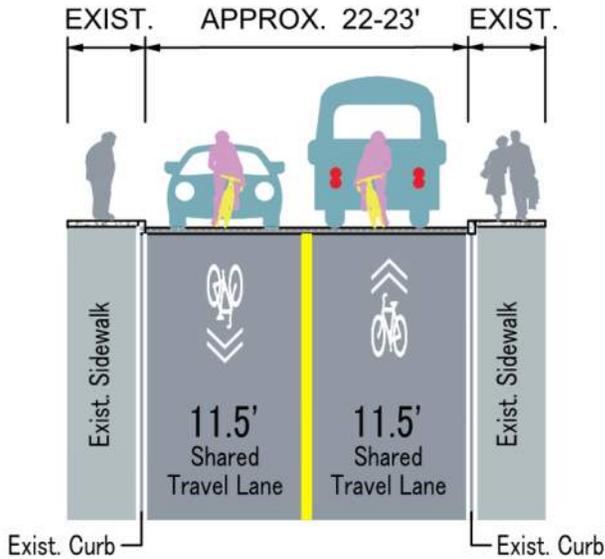
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PROJECT A MONROE STREET

5th Ave N to Greenway

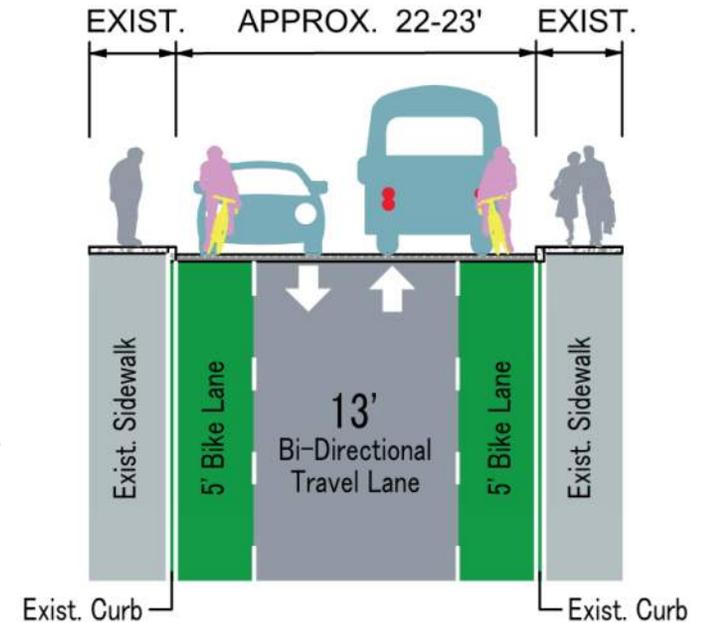


Option 1

← Shared Bike Lanes

Option 2

→ Advisory Bike Lanes



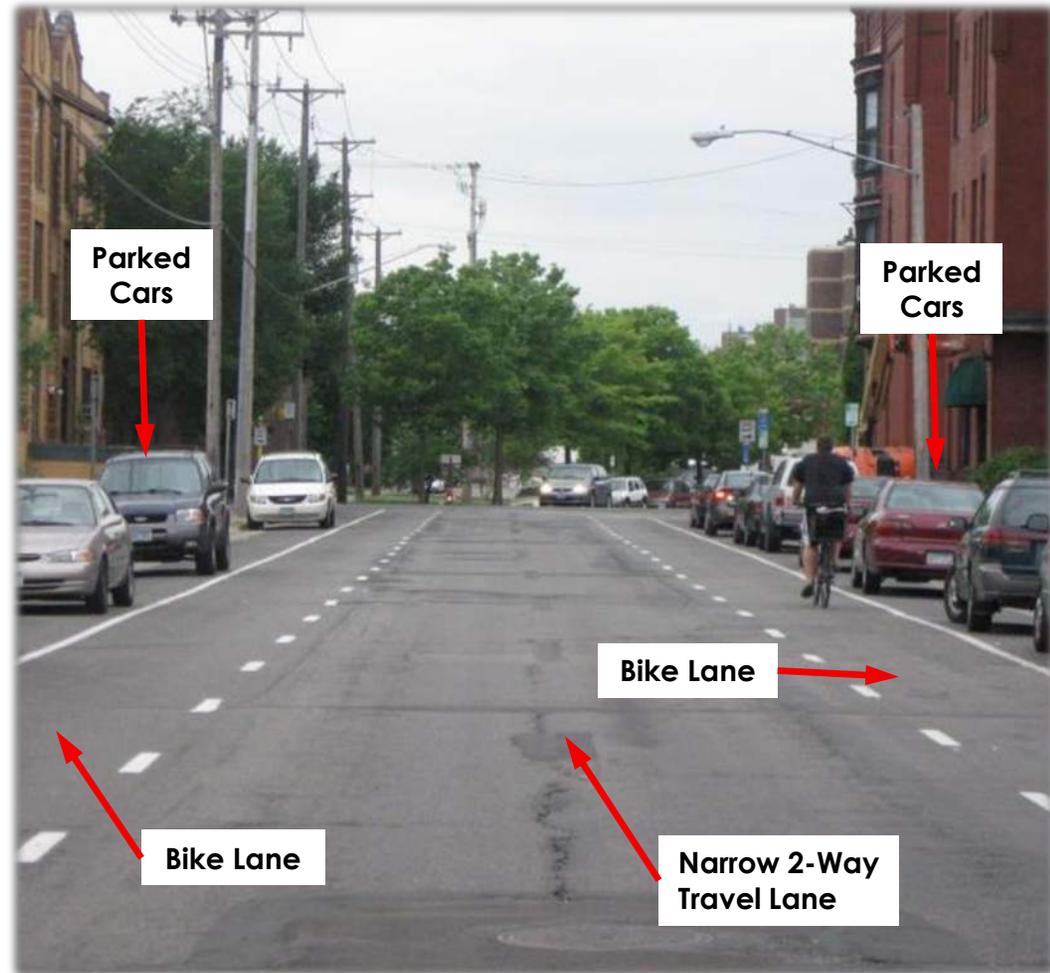
MONROE STREET - PROPOSED ROADWAY CROSS-SECTIONS

Example of an Advisory Bike Lane

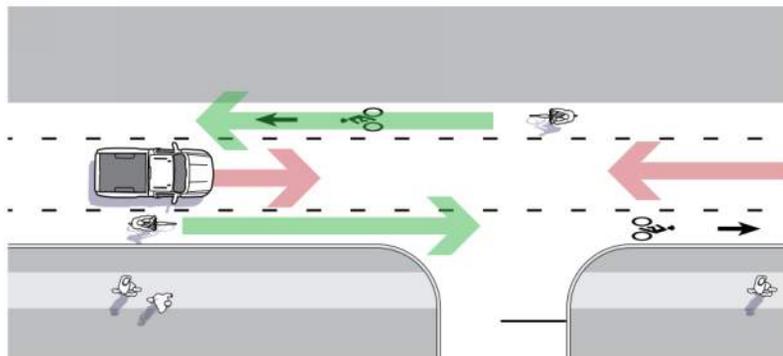
An advisory Bike Lane defines a preferred space for bicyclists and motorists to operate on narrow streets that would otherwise be a shared roadway.

With the presence of a bicyclist, opposing conflicting traffic will yield and pause in the bike lane until there is sufficient width to pass – operates much like a residential street lined with park cars.

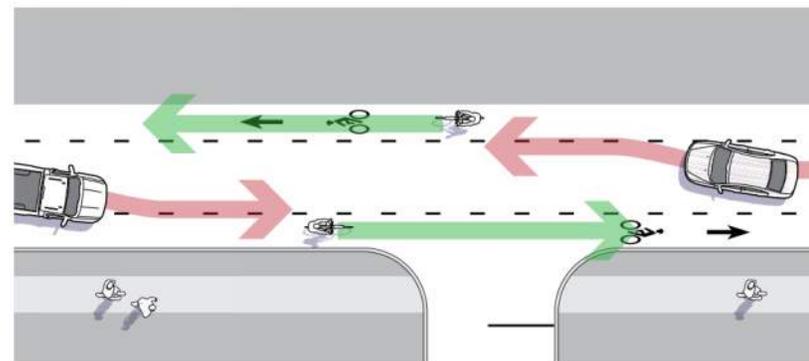
- Involves education and public interaction
- Posted speeds of 25 – 30 mph
- Good candidate for streets with insufficient width for dedicated bike lanes



Elliot Park, Minneapolis, MN



Single Motorist + Bikes



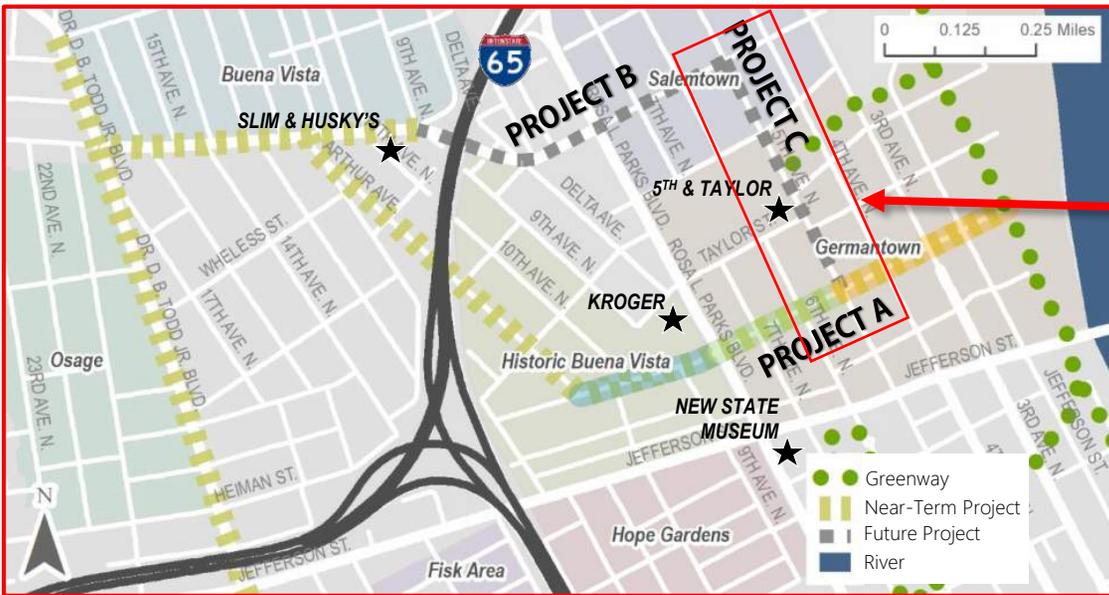
Opposing Motorists + Bikes

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YEAR1 IMPLEMENTATION**

5TH AVENUE N BIKEWAY

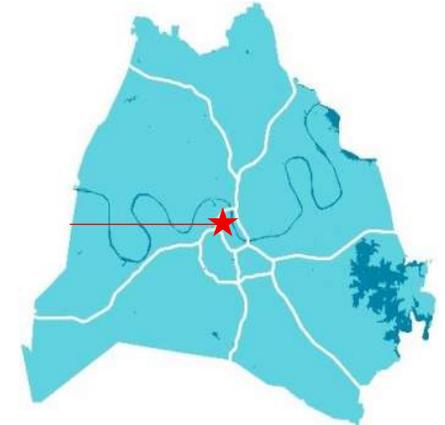


5th Ave. N

Project Description

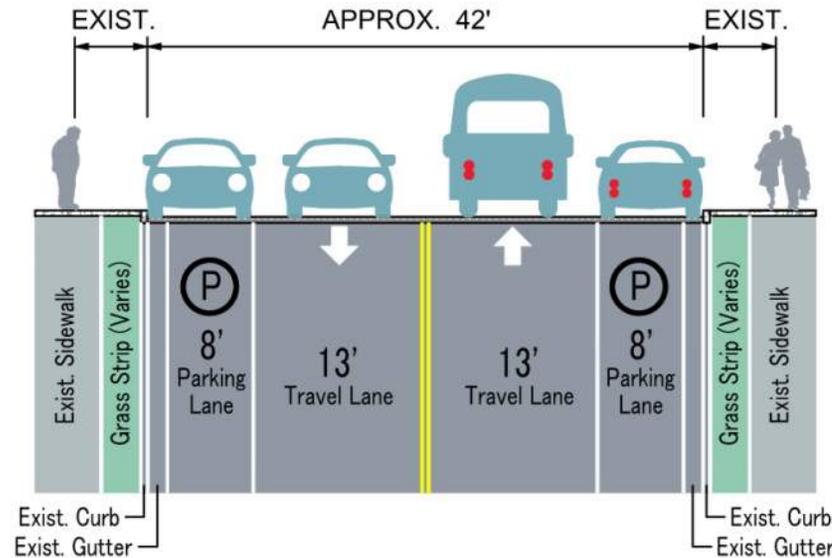
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Project Vicinity



**PROJECT C
5th Avenue N**

Monroe St. to Garfield St.



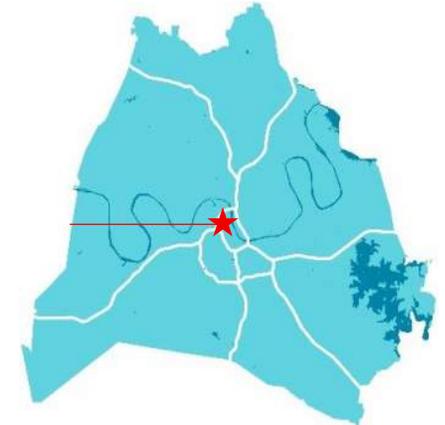
5th Avenue N - EXISTING ROADWAY CROSS-SECTIONS



Project Description

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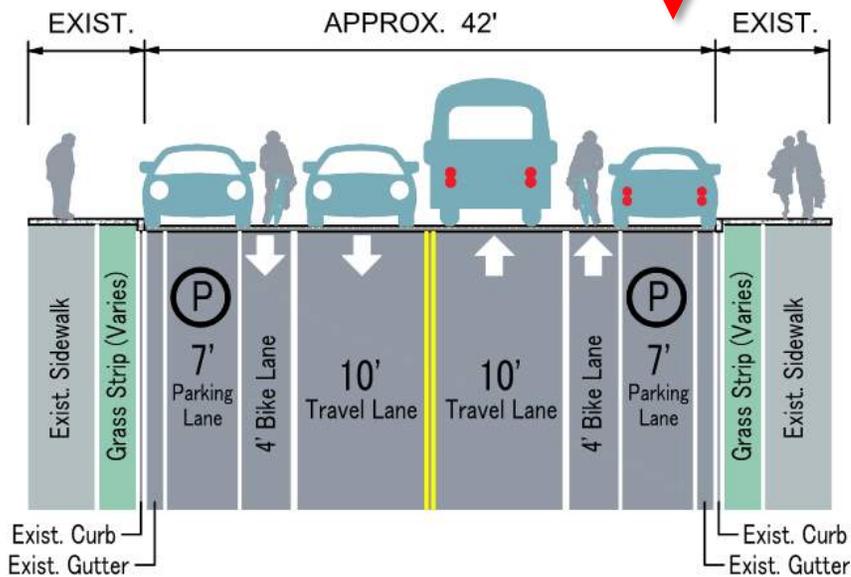


Option 1

Standard Bike Lanes

**PROJECT C
5th Avenue N**

Monroe St. to Garfield St.



5th Avenue N - PROPOSED ROADWAY CROSS-SECTIONS

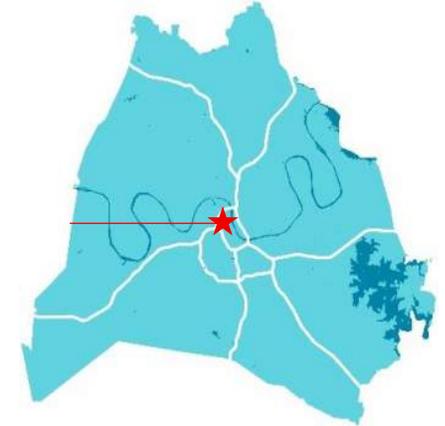


5TH Ave. N

Project Description

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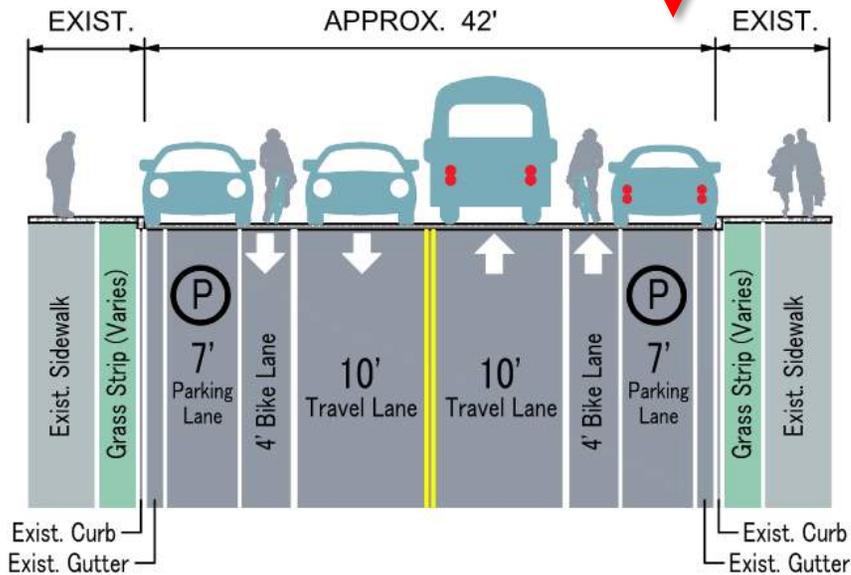


Option 1

Standard Bike Lanes

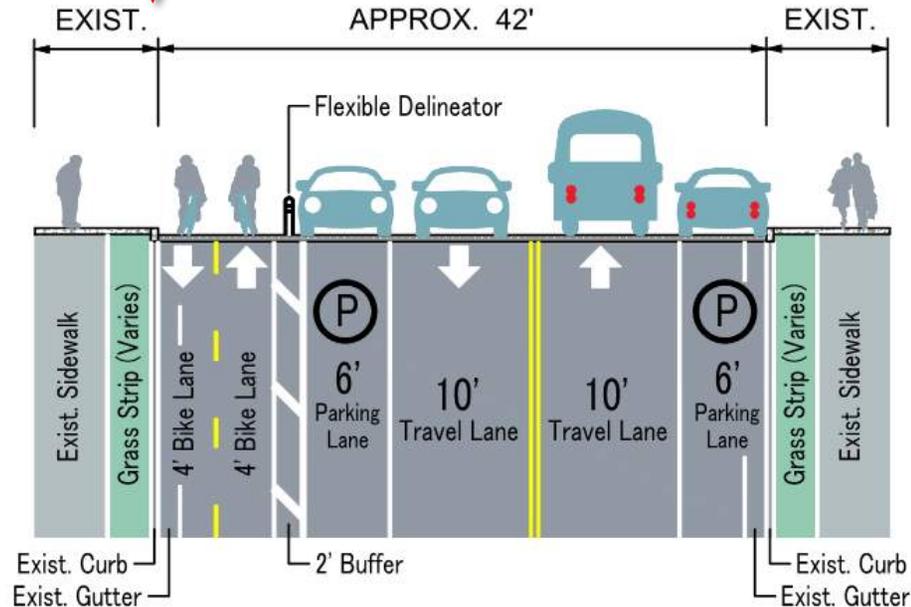
PROJECT C
5th Avenue N

Monroe St. to Garfield St.



Option 2

2-Way Cycle Track

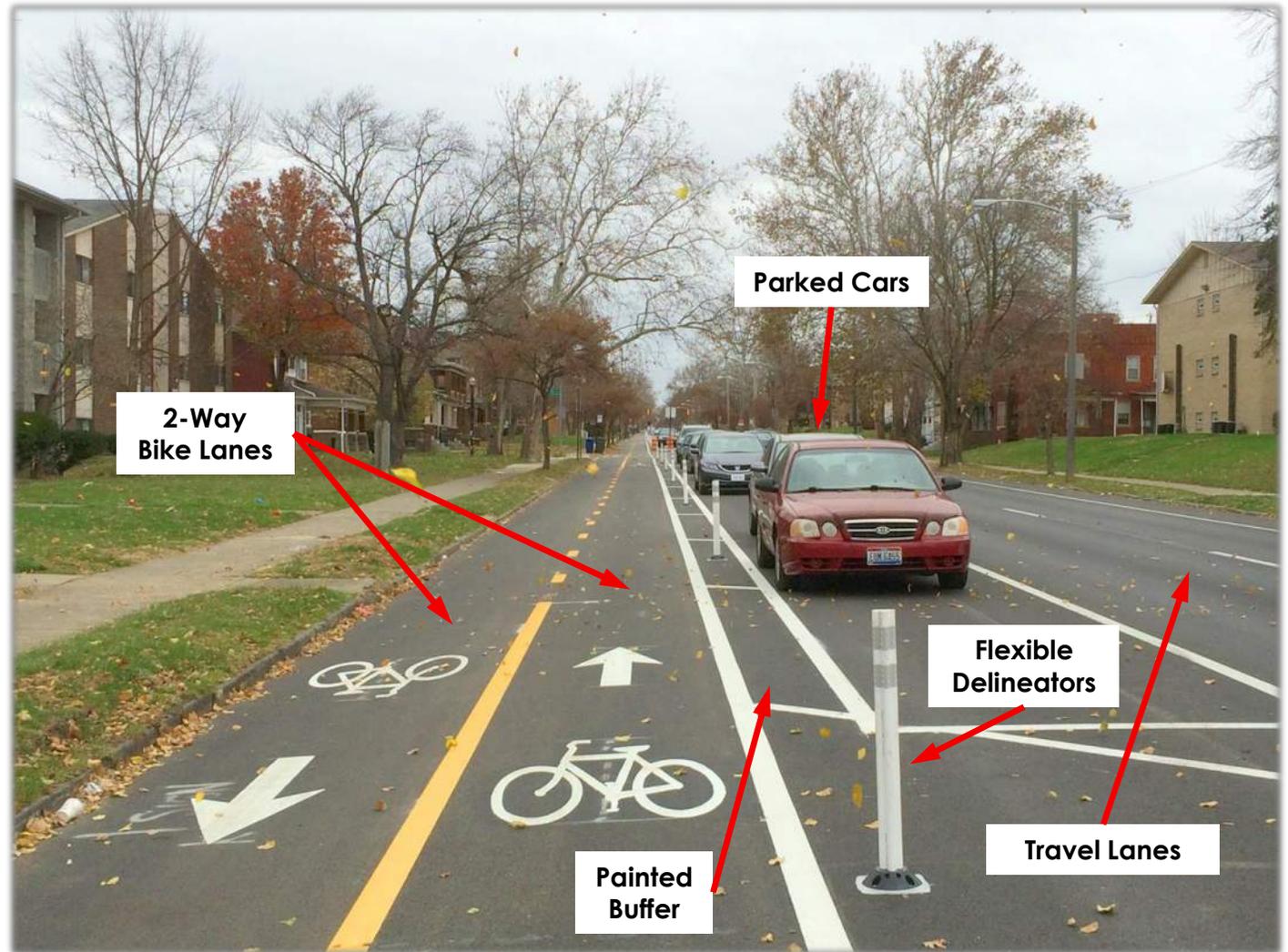


5th Avenue N - PROPOSED ROADWAY CROSS-SECTIONS

Example of a Protected 2-Way Cycle Track

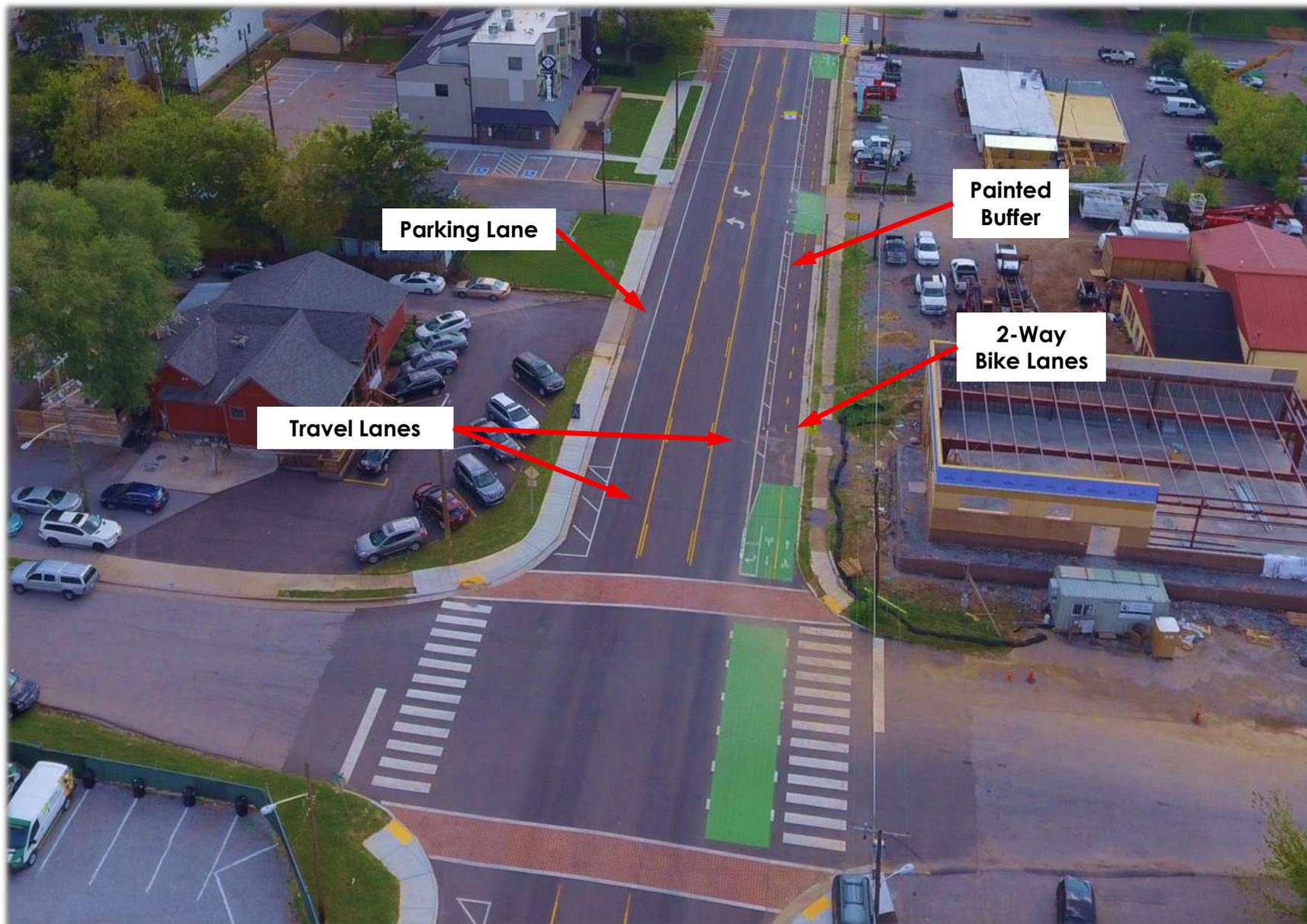
Protected bike lanes that allow bicycle movement in both directions on one side of the roadway

- Painted Buffer
- Parked Cars
- Flexible Delineator Posts



City of Columbus, OH

Example of a Protected 2-Way Cycle Track



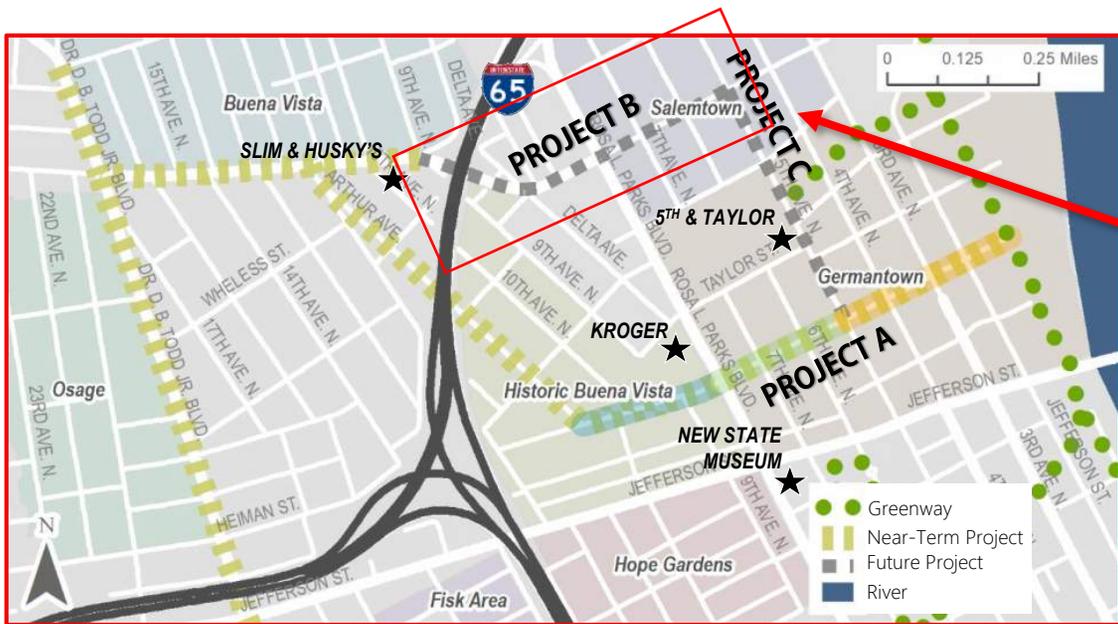
51st Avenue N, Nashville, TN

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**GARFIELD STREET
BIKEWAY**

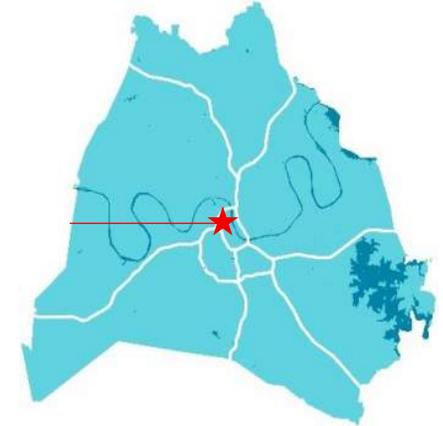


Garfield St

Project Description

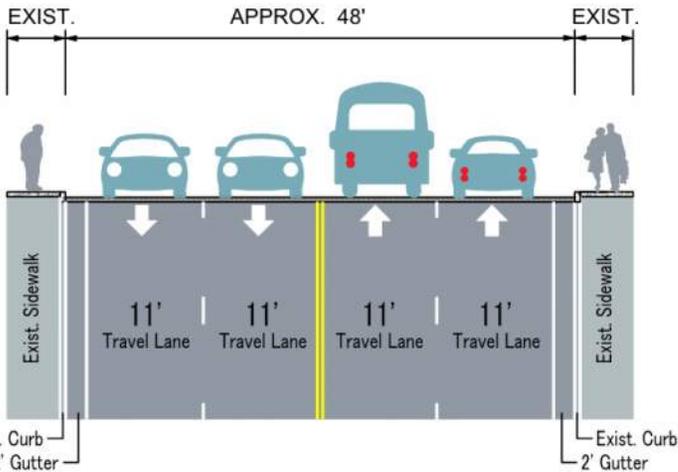
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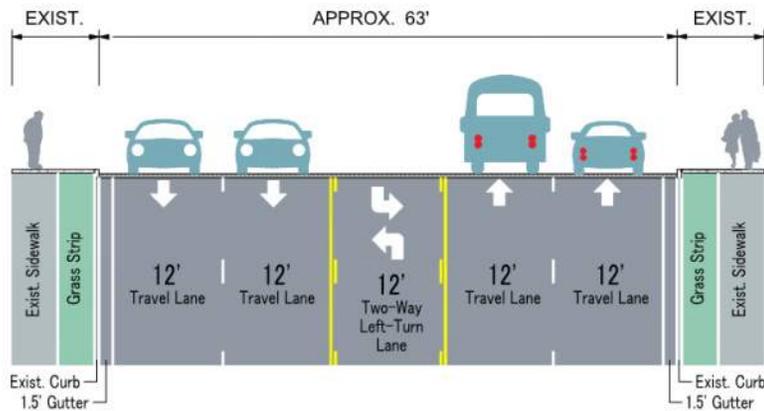


**PROJECT B
GARFIELD STREET**

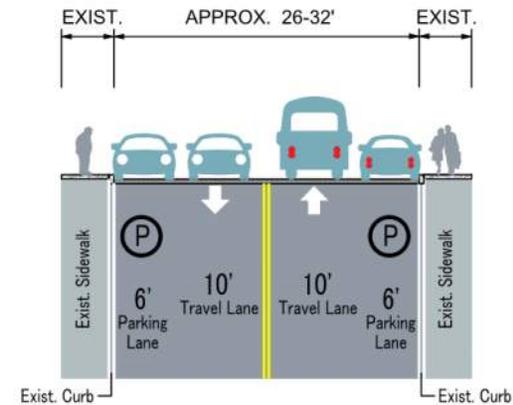
9th Ave. N to Delta Ave.



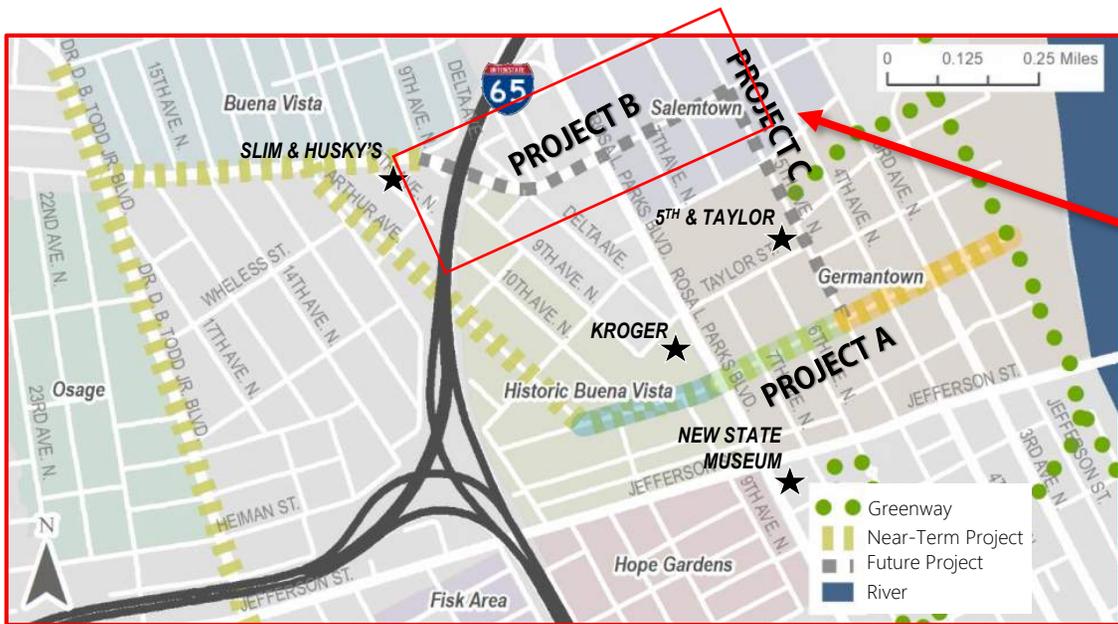
Delta Ave. to Rosa L. Parks Blvd.



**Rosa L. Parks Blvd. to
3rd Ave. N**



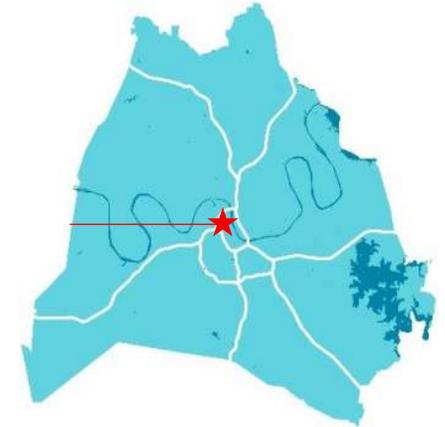
GARFIELD STREET - EXISTING ROADWAY CROSS-SECTIONS



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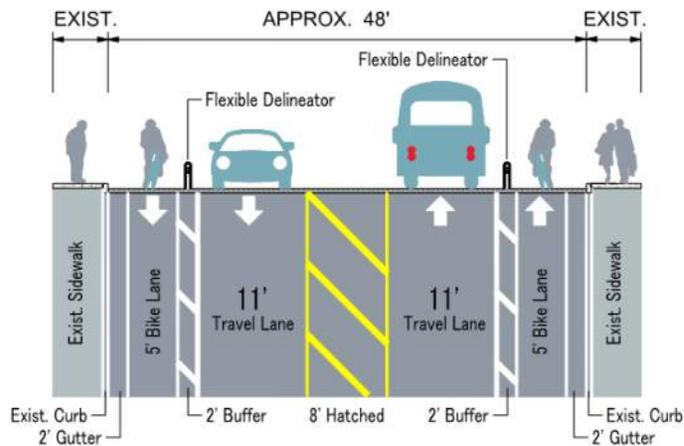
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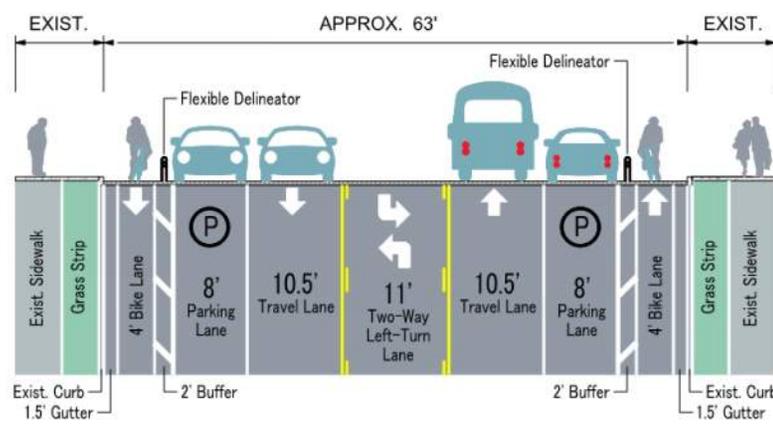


PROJECT B GARFIELD STREET

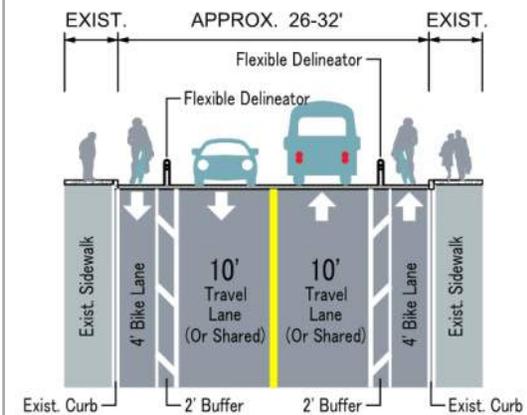
9th Ave. N to Delta Ave.



Delta Ave. to Rosa L. Parks Blvd.



Rosa L. Parks Blvd. to 3rd Ave. N



GARFIELD STREET - PROPOSED ROADWAY CROSS-SECTIONS

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**PRIORITY BIKE NETWORK
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**Other Safety Measures to
Consider**

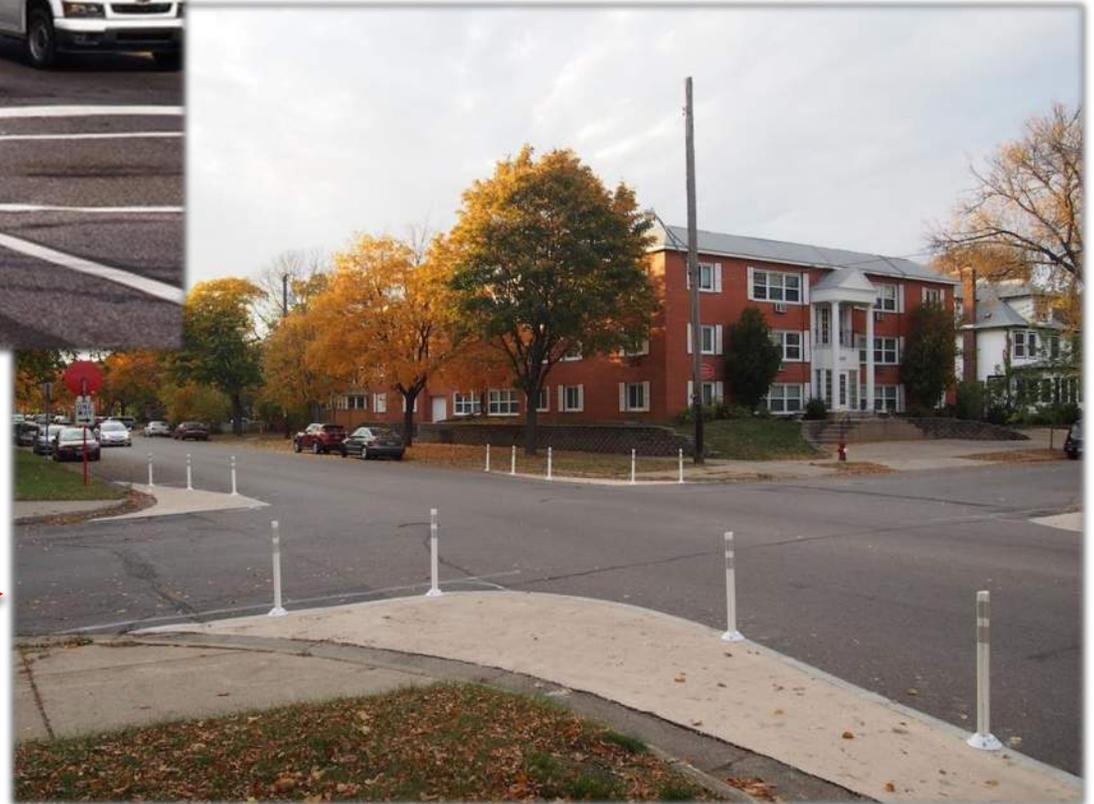
Curb Extensions (Bulb-Outs)

Curb extensions (bulb-outs) extend the sidewalk area into the parking lane to reduce the effective street width

- Reduce pedestrian crossing distance
- Potential to reduce speeds by visually narrowing the roadway
- Eliminates motor vehicles parking *too close* to the intersection



City of Memphis, TN



City of Minneapolis, MN

**Painted
Pavement with
Delineator Posts**

More Examples... Curb Extensions (Bulb-Outs)

Bike Corrals



6th Street, San Francisco, CA

Planters



Smith Street, New York, NY



Mississippi Avenue, Portland, OR

Ped Refuge Islands



City of Toronto, ON

Placed in the center of the street at intersections or midblock crossings to help protect pedestrians from motor vehicle traffic

- Enhance safety and visibility of pedestrian crossings
- Potential to reduce vehicle speeds approaching pedestrian crossings



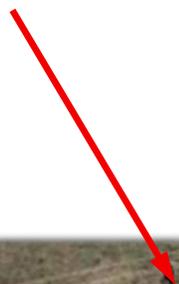
City of New York, NY

Ped Refuge Islands



City of Boston, MA

Bus Stop (MTA #42)



Potential Location for Installation along Monroe St.

Monroe St. & 9th Ave. N – Nashville, TN

Transit Access Modifications



City of Los Angeles, CA



City of Columbus, OH

- * Transit modifications may be necessary to eliminate transit / bicycle conflicts along Monroe Street near Kroger and Arthur Ave.

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GERMANTOWN

QUESTIONS?